

TREATMENT OF CHLORALKALI FEEDS CONTAINING HYDROGEN PEROXIDE AND BASE

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ABSTRACT OF THE DISCLOSURE

A method and apparatus for removing BHP contaminants (alkali hydroxide and H₂O₂) from a recycled aqueous alkali chloride solution stream before the stream is fed to a chloralkali cell so that the contaminants do not impair the operation of a chloralkali cell. Unwanted alkali hydroxide within the recycled alkali chloride brine solution is reacted with chlorine gas and converted into an alkali chloride, which is useful in the operation of the chloralkali cell, and oxygen gas, which is outgassed from the system. Any H₂O₂ remaining in the recycled stream after elimination of the alkali hydroxide is reacted with chlorine to form HCl and oxygen gas. The HCl raises the pH of the brine solution, after which the pH may be adjusted by the addition of supplemental alkali hydroxide.